ABSTRACT

Method and apparatus are presented for manufacturing transparent mirrored spheroidal mini-balls for solar energy and related applications such as optical switches. For these applications it is imperative to provide accurate specular reflection from the mirror. Various means are described for maintaining the desired mirror flatness and avoiding warping, buckling, etc. of the mirror surface during manufacture. The mini-balls are in the size range of 4 microns (4×10^{-6} m) to 10 centimeters (10^{-1} m), and are transparent in at least one hemisphere. They preferably have a reflecting mid-plane mirror, though they can also be mirrored on a flat top of the ball.